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(56) Documents Cited

GB 2342910 A

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DE 29803363 U U 1

(58) Field of Search

UK CL (Edition S) B8F FBG

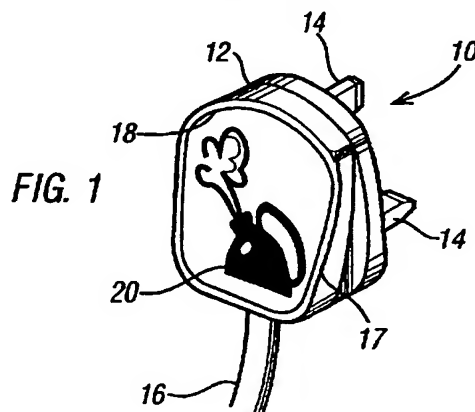
INT CL⁷ G09F 3/00 3/10

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(54) Abstract Title

Identification label for plugs

(57) An adhesive label 18 for electrical plugs 10 comprises a first surface bearing a graphical representation 20 of an electrical appliance such as a computer or a kettle for example, and a second surface having an adhesive for attachment to the plug 10. The label may also have a further layer carrying a wax or other non-adhesive surface coating to which the layer is releasably attached for storage and sales purposes. Several labels may be provided on a single sheet (fig 2, 22), each label bearing a graphical representation of a different electrical appliance and each label is individually separable from the sheet (fig 2, 22). of which multiple sheets (fig 4, 22) may be contained in a an individual pack (fig 4, 42). The graphical representation may be formed by being printed in a monotone or two or more colours, or by screen printing, digital printing, laser printing, lithography, or may be formed by variations in a substrate layer such as variation in colour in a plastic layer, or variations in relief such as braille. The graphical representation may cover between at least 50% and 80% of the surface area of the label, the label may be sized between 25mm-70mm wide and 25mm-70mm long, however, the overall shape of the label may not be rectangular (fig 7). The adhesive label may be attached to the plug's cable 16 by a fixing strip (fig 13, 150) or by a clip (fig 15b, 212).



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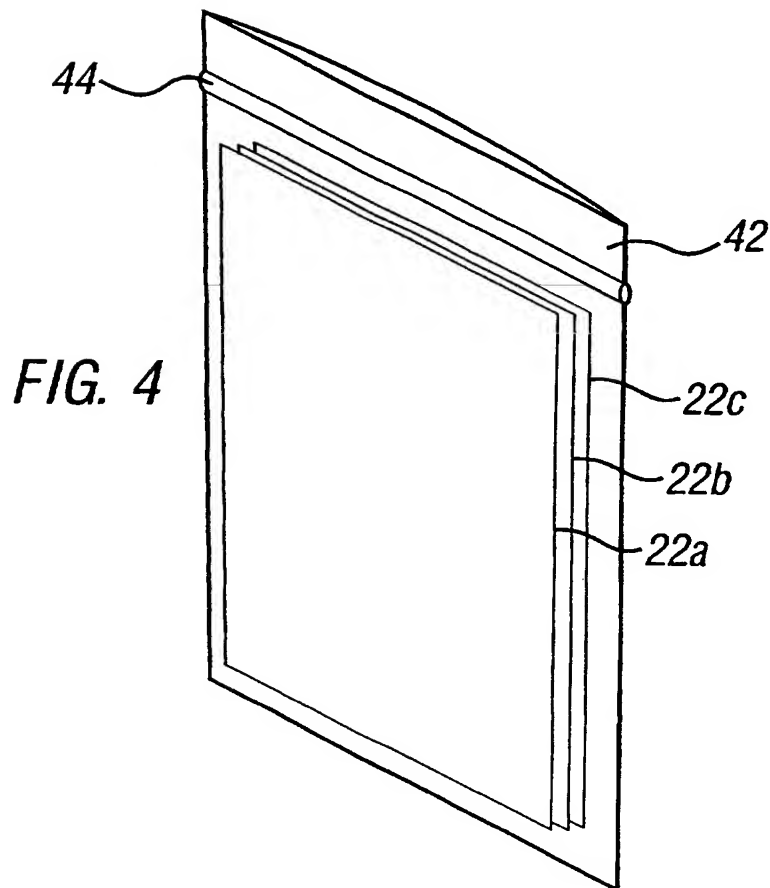
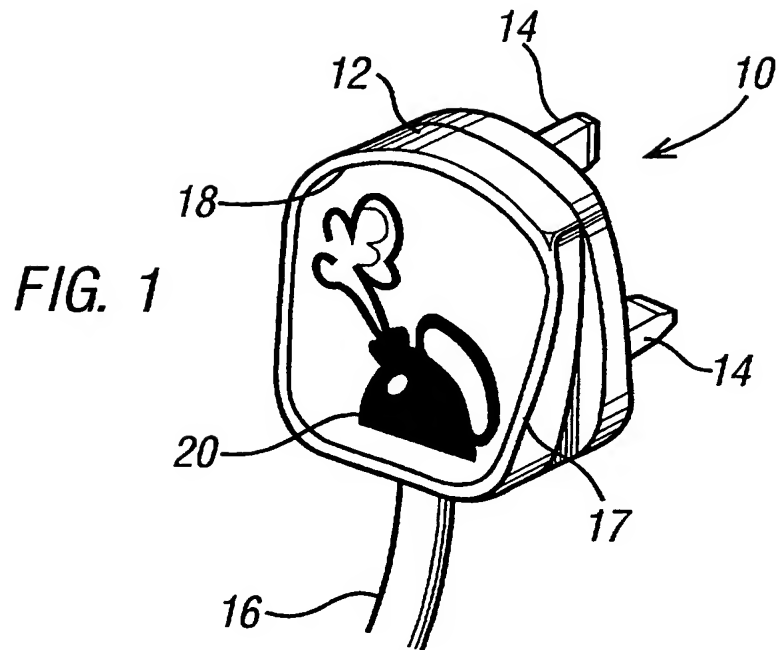


FIG. 2

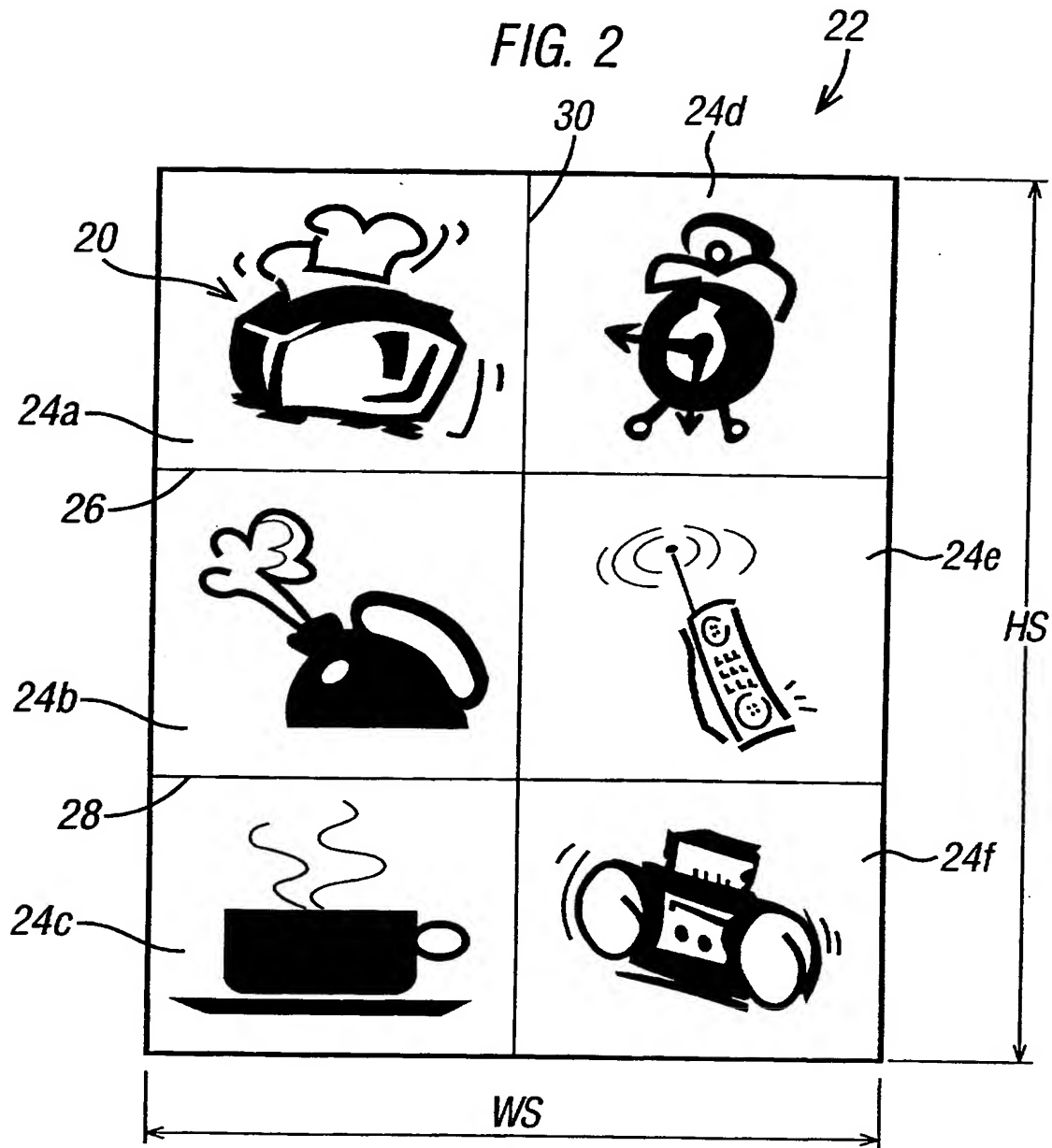
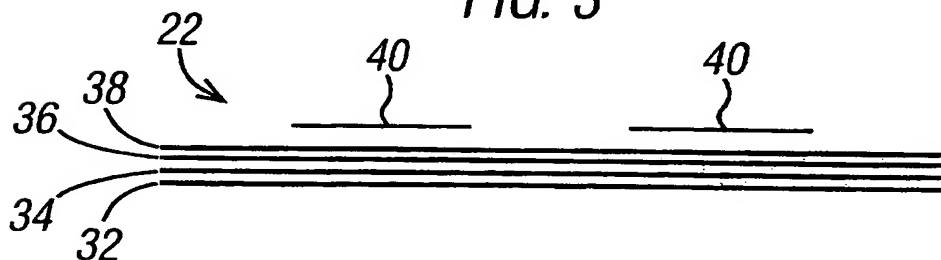


FIG. 3



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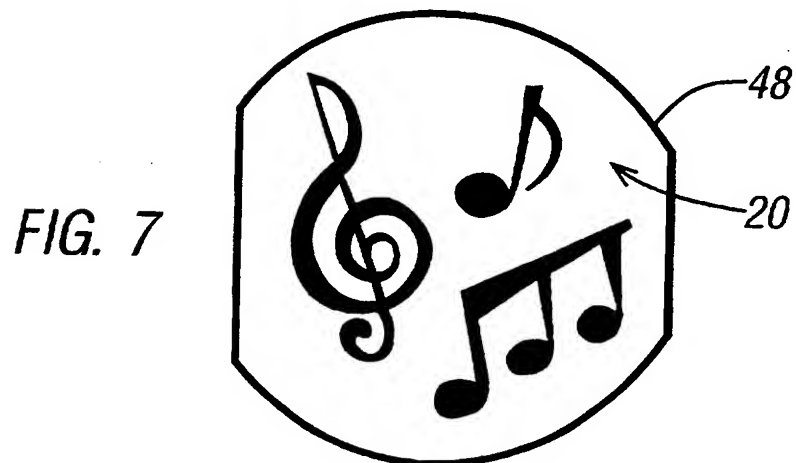
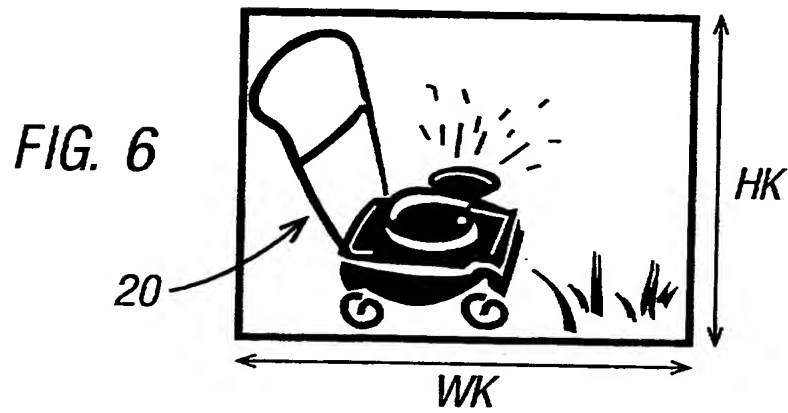
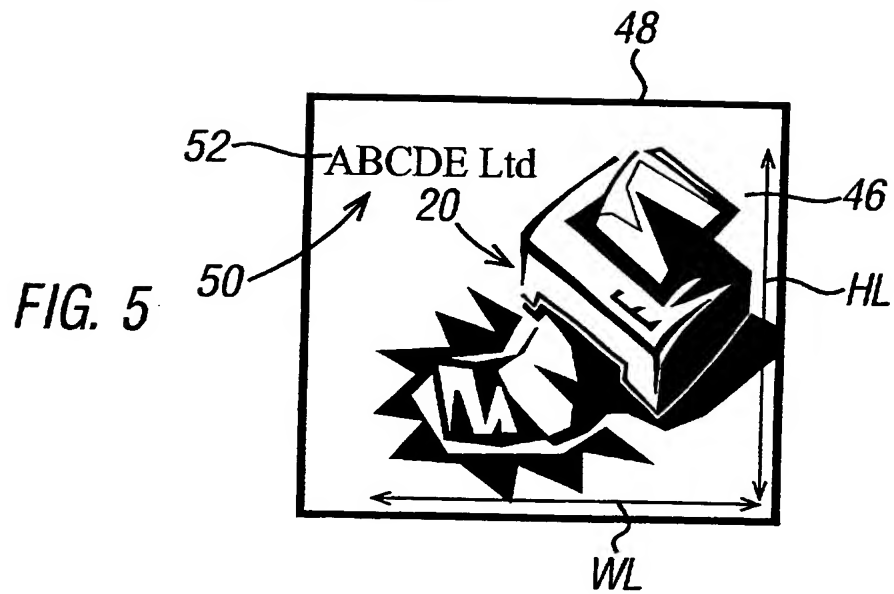
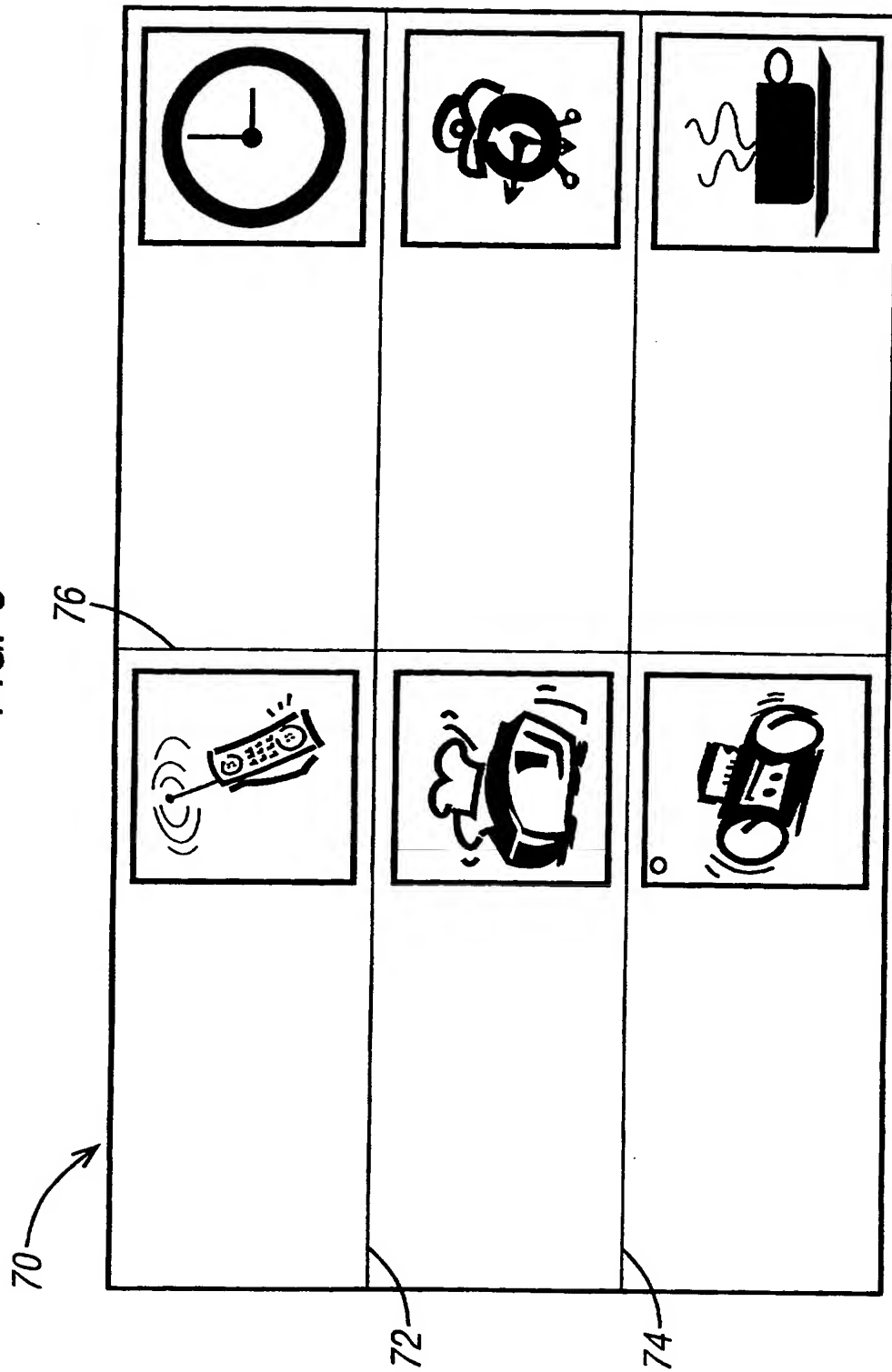


FIG. 8



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FIG. 9

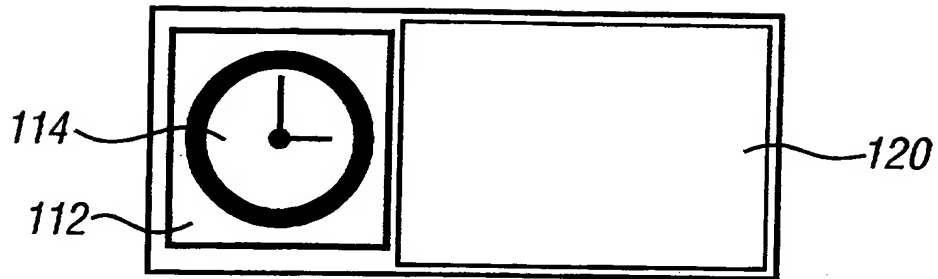


FIG. 10

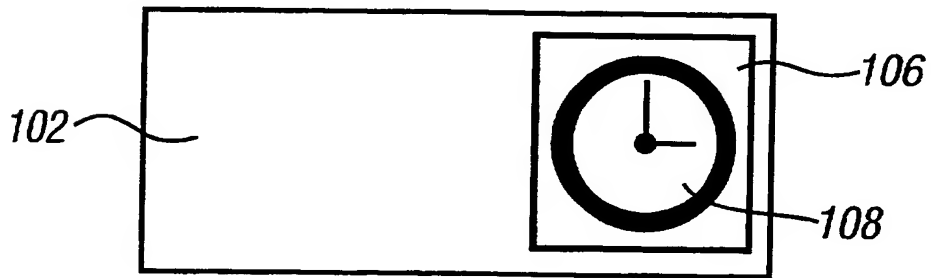


FIG. 11

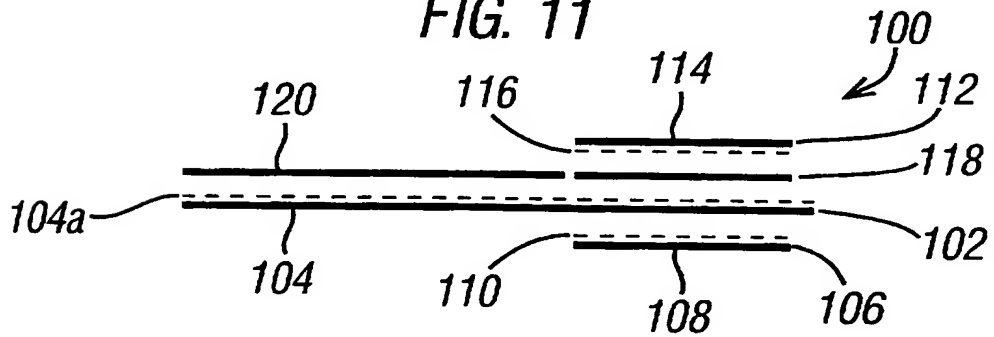


FIG. 12

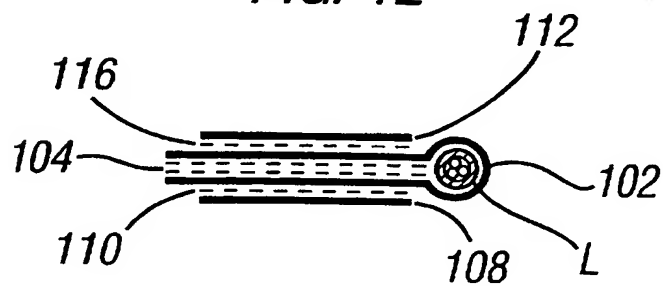


FIG. 13

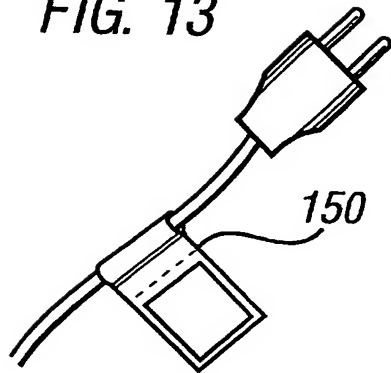


FIG. 14a

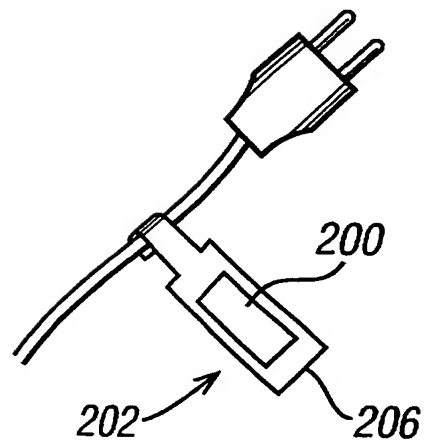


FIG. 14b

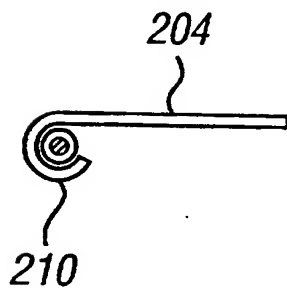


FIG. 15a

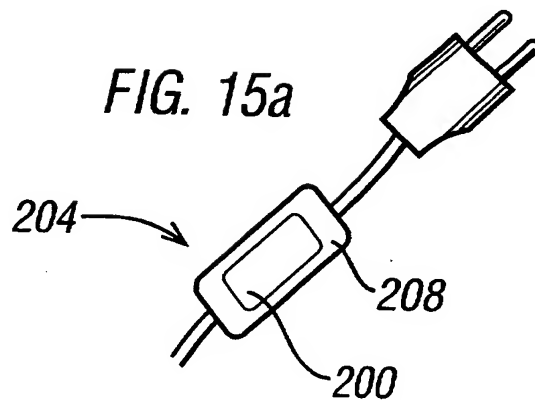
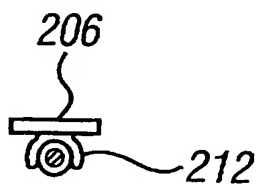


FIG. 15b



IMPROVEMENTS IN PLUGS

The invention relates to electrical plugs for electrical appliances such as used in the home or office including for example kettles, toasters and computers and the like. The invention relates to pre-printed stickers for use on such plugs as well as a combination of a plug and sticker or a plug lead and sticker, and packs of pre-printed stickers for example.

It is known in a domestic or working environment to gather several electrical appliances in one area and to have an electrical extension wire having a panel or body consisting of multiple sockets thereby to provide a centralised location for connecting all of the plugs for each of the electrical appliances to a mains supply of electricity at the extension lead. However, when such collections of plugs and sockets are provided it is particularly confusing for an individual to know which plug relates to which appliance. Accordingly, an individual can accidentally remove a plug for a different appliance to that intended. This can have serious consequences when for example an individual removes the plug for a computer from a mains socket when the computer is running thereby potentially losing contents of temporary memory storage within the computer.

In light of these difficulties, the invention seeks to provide a system for more easily identifying the plug of an appliance. The invention seeks to avoid or at least mitigate these and other problems of the prior art.

According to a first aspect of the invention there is provided an adhesive label comprising a first surface having a graphical representation of an electrical appliance such as a computer or a kettle for example, and a second surface comprising an adhesive and being adapted for attachment proximal to an

electrical plug for an appliance. Preferably, the graphical representation is printed for example in a monotone, two, three or four colour representation formed for example by screen printing, digital printing, laser printing or lithography. Alternatively the graphical representation can be formed by variations in a substrate layer such as variation of colour in a plastic layer or by variation in relief, such as braille.

A second aspect of the invention provides the combination of an electrical plug and adhesive label according to the first invention. Beneficially, the label and/or graphical representation cover at least 50% of the surface area of the surface of the plug.

More beneficially, the adhesive label and/or graphical representation cover 60%, more preferably 70%, more preferably still 80% of the surface of the plug.

In one form, the adhesive label and/or graphical representation are in the order of 30mm wide by 30mm long. More preferably the adhesive label and/or graphical representation is in the order of 25mm-70mm wide and/or 25mm-70mm long.

A third aspect of the invention provides the combination of clip bearing a display surface attached to the lead of a plug for an appliance and an adhesive label according to the first invention.

A fourth aspect of the invention provides a two-sided adhesive label comprising a fixing strip with a front and rear surface; part of the front surface comprising a graphical representation of an electrical appliance such as a computer or a kettle for example, the rear surface of the strip being provided with an adhesive layer and thereby being adapted for proximal attachment to a

portion of a lead of a plug for an appliance. Preferably, part of the rear surface comprises a similar graphical representation to that on the front surface. Preferably, the graphical representations are in a generally back to back positions upon the fixing strip. In one form the graphical representations are in the order of 30mm wide by 30mm long and are located near one end of a rectangular fixing strip 90 mm long by 30 to 40 mm wide. Preferably, a backing sheet made of waxed paper or the like covers the adhesive layer of the fixing strip. Preferably, a sheet carrying the rear graphical image has the image on a front side and an adhesive layer on a rear side. Preferably part of the waxed paper sheet is sandwiched between the adhesive layers of the fixing strip and the adhesive layer on the rear side of the backing sheet.

According to another aspect of the invention there is provided a sheet of pre-printed adhesive labels comprising two or more labels.

According to yet another aspect of the invention there is provided a pack comprising two or more sheets of labels each sheet comprising one or more labels.

Beneficially, each sheet in the pack can be adapted for specific domestic or work environments. For example, one sheet can be provided for appliances generally found in a kitchen while another sheet can be provided for appliances typically found in a workshop or garage. A yet further sheet can be provided for electrical appliances to be found in an office and so on.

Preferably the adhesive for the invention according to any aspect thereof is of a type to provide relatively permanent adhesion of the label to a plug, lead or clip as appropriate. Accordingly, preferably the adhesive is sufficiently strong to resist easy manual removal of a label once it is secured in position for use.

Preferred features and other aspects of the invention will now become apparent and/or be described in greater detail with reference to the accompanying drawings. Accordingly, embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:-

FIGURE 1 is a perspective view of a plug according to the invention;

FIGURE 2 is a front elevation view of a sheet of labels according to the invention;

FIGURE 3 is a schematic sectional end elevation view of the sheet shown in FIGURE 2;

FIGURE 4 is a schematic perspective view of a pack according to the invention comprising sheets of labels;

FIGURES 5, 6 and 7 are schematic representations of further labels according to the invention;

FIGURE 8 is a front view of sheet of two-sided labels according to the invention;

FIGURE 9 is a rear view of one of the two-sided labels shown in FIGURE 8

FIGURE 10 is a front view of the two-sided label shown in FIGURE 9; and

FIGURE 11 is a schematic sectional end elevation view of the sheet shown in FIGURE 10;

FIGURE 12 is a schematic sectional elevation of a two-sided label attached to the lead of a plug for an appliance;

FIGURE 13 shows a two-sided label proximally attached to the lead of plug for an appliance;

FIGURES 14 a and b, and 15 a and b, show labels attached to plastic clip fixed to the lead of plug for an appliance.

FIGURES 14 a and b, and 15 a and b, show labels attached to plastic clip fixed to the lead of plug for an appliance.

Referring to FIGURE 1, there is shown a plug 10 according to the invention comprising a body 12 housing electrical connections and typically a fuse for example, and electrical contact pins 14 for insertion into an electrical socket such as a mains electrically socket in a domestic or work environment. Plug 10 is connected to a lead 16 for connection to an electrical appliance such as a television or kettle for example.

The body 12 of plug 10 comprises a rear surface 17. Plug 10 according to one aspect of the invention further comprises a pre-printed adhesive label or sticker 18 comprising a graphical representation or logo 20 representative of an appropriate electrical appliance. In this case, a graphical representation of a kettle is shown in the form of logo 20. Hence lead 16 is for a kettle.

In one form of the invention, several stickers are provided on a single sheet 22 as shown in FIGURE 2. Sheet 22 comprises six stickers 24a-f, wherein each sticker comprises a logo or graphical representation 20 of a different electrical appliance. In this example, electrical appliances of a toaster, kettle, coffee percolator, clock, mobile phone charger, and portable radio cassette machine are shown in labels 24a-f respectively.

Sheet 22 further comprises two horizontal lines 26 and 28 for dividing rows of stickers 24 and preferably providing perforations in order to enable separation of stickers 24 from an underlying substrate shown more clearly in FIGURE 3 as described later. A further perforation or line of separation between columns of stickers is provided in the form of a vertical line 30. Sheet 22 has a width WS

and height HS preferably in the order of multiples of 30mm-70mm in each direction according to the number of stickers 24 provided on a given sheet 22.

Referring to FIGURE 3 it can be seen that sheet 22 preferably comprises a first substrate 32 such as paper for carrying a wax or non-adhesive surface coating 34 to which an adhesive layer 36 is releasable attached for storage and sales purposes. Adhesive layer 36 is also bonded to a second substrate 38 of printable material such as paper which carries on its outer most surface regions of ink 40 for the logos 20.

The stickers of the invention need not be fastened to a plug. Thus FIGURES 14 and 15 show stickers 200 attached to display holders 202 and 204 each with display surfaces 206,208 and plastic clips 210,212 that engage the lead L of the plug for an appliance substantially all of the way around a lead 210 (see FIGURE 14b) or grip opposite sides of a lead 212 (see FIGURE 15b). The clips are preferably made of a resilient material such as nylon. This form of the invention is particularly convenient for continental style plugs that do not have a suitably sized rear surface 17 (see FIGURE 1).

In a preferred form, multiple sheets 22 are provided in an individual pack 42 or bag as shown in FIGURE 4. Preferably the container 42 comprises a seal 44 which defines a pocket for carrying two or more sheets of stickers. In this example, three sheets of stickers 22a-22c are provided in bag 42. The sheets 22 can themselves carry 1, 2 or more stickers. Preferably each sheet relates to electrical appliances typically found in a particular room within a domestic or office environment, such as a kitchen, study, workroom, living room or studio for example.

FIGURES ~~4~~⁵ provide further examples of graphical representations or logos 20 suitable for easy recognition of the associated electrical appliance. In FIGURE 5, a sticker 46 is shown comprising a logo 20 of an ink jet printer. The sticker 46 comprises a rectangular perimeter 48 within which there is a space 50 to carry sponsorship details or information such as a corporate name 52, which in this example is simply given as ABCDE Ltd. The logo 20 preferably comprises a width WL and height HL which substantially fills the surface area of sticker 46. Preferably the width and height of the logo are each in the order of 20mm to 40mm and preferably about 30mm.

FIGURE 6 is further example of a sticker according to the invention this time showing a logo for an electrical lawnmower. Here again the perimeter of the sticker is rectangular and has a width WK and height HK. Wherein both dimensions are preferably in the order of approximately 20mm to 40mm and/or about 30mm, so that the logo fills about 80% of the sticker and more preferably about 80% of the surface 17 of a plug 10.

As indicated in FIGURE 7, the outer perimeter of a sticker need not be square or rectangular but could be any shape and preferably the outer shape is adapted to fit within the perimeter of the surface 17 of a given range of plugs for which the stickers are adapted.

Another aspect of the invention provides a two-sided label as shown in FIGURE 11. A two-sided label 100 preferably comprises a first sheet 102 to the rear side of which an adhesive layer 104 is bonded. A second sheet 106 the front face of which bears a pre-printed logo or icon 108 and the rear face to which is bonded an adhesive layer 110. The second sheet 106 is attached to the front face of sheet 102 (as shown in FIGURE 10). A third sheet 112 has a similar pre-printed logo or icon 114 and the rear surface has a bonded adhesive layer

116. Logo or icon 108 is attached in a generally back to back position with logo or icon 114. Sandwiched between adhesive layer 116 and adhesive layer 110 there is optionally a rectangular sheet of paper 118 waxed on both sides or the like. A backing sheet 120 made of waxed paper or the like also covers that part of the rear side of sheet 102 that does not have the third sheet 112 attached thereto. Alternatively, layer 108 can be directly formed on first sheet 102 without the need for second sheet 106 and adhesive layer 110. Similarly logo 114 can be directly formed on first sheet 102 without the need for layers 112, 116 and 118 and part of adhesive layer 104 in the region of logo 114.

The two-sided labels shown in FIGURES 9, 10 and 11 may optionally be provided in the form of a sheet. FIGURE 8 shows six such labels in the form of a single sheet 70.

The first, second and third sheets are preferably made of paper or thin plastics material. The logo or icon may be formed by methods other than simple printing using ink, for example they may be produced by a laser printer.

In use a two sided label is torn from a sheet and backing sheet 120 is removed thus allowing exposed adhesive surface 104 to be placed around the lead of a plug for an appliance, preferably with the end portion 104a of the adhesive backing overlapping 150 (see FIGURE 13) so as to provide an adhesive to adhesive bond between adjacent areas of adhesive surface 104. Sheet 70 further comprises two horizontal lines 72 and 74 for dividing rows of two-sided labels 100 and preferably providing perforations in order to enable separation of two-sided labels 100 from each other. A further perforation or line of separation between columns of stickers is provided in the form of a vertical line 76.

While the above method of attachment is simple and quick a more permanent attachment is achievable as follows. A two sided label is torn from a sheet and third sheet 112 is removed together with waxed sheet 118. Backing sheet 120 is then removed and the end portion 104a of the adhesive surface 104 is folded around lead L as shown in FIGURE 12. Waxed sheet 118 is then removed from third sheet 112, third sheet 112 affixed to folded sheet 102 by adhesive layer 116 such that third sheet 112 and second sheet are in a generally back to back position with folded sheet 102 sandwiched therebetween. Thus waxed sheet 118 allows the two-sided label 100 to be readily attached by either this method or by the quicker method described earlier.

Claims

1. An adhesive label comprising a substrate having a first surface bearing a graphical representation of an electrical appliance, and a second surface carrying an adhesive layer and being adapted for attachment proximal to an electrical plug for an appliance.
2. A label according to Claim 1 comprising a further substrate carrying a wax or non-adhesive surface coating to which the said adhesive layer is releasably attached for storage and sales purposes.
3. A label according to Claim 1 or 2 wherein the graphical representation is printed.
4. A label according to Claim 3 wherein the printing is a monotone, two, three or four colour representation.
5. A label according to Claims 3 or 4 using screen printing, digital printing, laser printing or lithography.
6. A label according to Claim 1 or 2 wherein the graphical representation is formed by variations in a substrate layer such as variation of colour in a plastic layer or by variation in relief, such as braille.
7. A combination of an electrical plug and adhesive label according to any of Claims 1 to 6 wherein the graphical representation covers at least 50% of the surface area of a planar surface of the plug, preferably 60% of that surface area, more preferably 70% of that surface area, more preferably still 80% of that surface area.

8. A combination of an electrical plug and adhesive label according to any of Claims 1 to 7 wherein the adhesive label and/or graphical representation in the order of 25mm-70mm wide and/or 25mm-70mm long.
9. An adhesive label comprising a fixing strip with a front and rear surface; part of the front surface comprising a graphical representation of an electrical appliance, the rear surface of the strip being provided with an adhesive layer and thereby being adapted for proximal attachment to a portion of a lead of a plug for an appliance.
10. A label according to Claim 9 wherein part of the rear surface comprises a similar graphical representation to that on the front surface.
11. A label according to Claim 10 wherein the graphical representations are in a generally back to back positions upon the fixing strip.
12. A label according to Claim 10 or 11 wherein the graphical representations are in the order of 30mm wide by 30mm long and are located near one end of a rectangular fixing strip in the order of 90 mm long by 30 to 40 mm wide.
13. A label according to any of Claims 9 to 12 wherein a backing sheet made of waxed paper or the like covers at least a part of the adhesive layer of the fixing strip.
14. A label according to any of Claims 10 to 13 wherein part of the waxed paper sheet is sandwiched between the adhesive layers of the fixing strip and an adhesive layer on the rear side of a sheet bearing one of the graphical representations.

- 15.A label according to any of Claims 1 to 14 wherein the adhesive provides relatively permanent adhesion of the label to another item and is sufficiently strong to resist easy manual removal of a label once it is secured in position for use.
- 16.A sheet of pre-printed adhesive labels alone or in combination with an electric plug comprising two or more labels according to any preceding claim.
- 17.A pack of labels alone or in combination with a plug comprising two or more sheets, each sheet comprising one or more labels according to any of Claims 1 to 15.
- 18.A pack of labels according to Claim 17 wherein each sheet in the pack is adapted for specific domestic or work environments.
- 19.A combination of an electrical plug and adhesive label according to any preceding claim.
- 20.A combination of clip bearing a display surface attached to the lead of a plug for an appliance and an adhesive label according to any of Claims 1 to 6.



Application No: GB 0026072.9
Claims searched: 1-20

Examiner: Darren Williams
Date of search: 20 March 2001

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): B8F (FBG)

Int Cl (Ed.7): G09F 3/00, 3/10

Other: Online: EPODOC, JAPIO, WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2342910 A (ECCLES) see lines 8-21 of page 1	1-8
X	GB 2167592 A (COOLING) see lines 34-35 and 55-56 of page 1	1-20
X	GB 2059913 A (CROFTS) see lines 26-33 of page 1	9-19
X	DE 29803363 U1 (FESTO) see whole document	20

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.